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# WATERLINES

News affecting the management and use of Indiana's water resources

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DIVISION OF WATER  
INDIANA DEPARTMENT OF NATURAL RESOURCES  
SPRING-SUMMER 2001

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## FUNDING OPPORTUNITIES AVAILABLE THROUGH THE DIVISION OF WATER

The Department of Natural Resources, Division of Water, administers the **Indiana Flood Control Revolving Fund**, IC 14-28-5, as well as the **Rural Water Supply Revolving Fund**, IC 14-25-11. The Indiana General Assembly created the Flood Control Revolving Fund in the 1950's to provide a low interest loan program to help finance local flood control programs. Later, in the 1960's, the Indiana General Assembly created the Rural Water Supply Revolving Fund as a branch of the Flood Control Revolving Fund to provide a low interest loan program to help finance rural water supply systems. Both have helped fund important improvements in communities across the State.

The **Flood Control Revolving Fund** is available to a municipality, city, town, county, or special taxing district for the purpose of instituting, accomplishing, and administering an approved flood control program.

The Flood Control Revolving Fund is also available to a conservancy district to pay for the costs of establishing a district and costs associated with preparing the district plan for any of the purposes for which a conservancy district can be established.

An approved flood control program may include:

1. Removal of obstructions and accumulated debris from channels of streams.
2. Clearing and straightening of channels of streams.
3. Creating of new and enlarged channels of streams.
4. Building or repairing of dikes, levees, or other flood protective works.
5. Construction of bank protection works for streams.
6. Establishment of floodways.

The proposed flood control program is subject to

### Also in this issue

|   |          |
|---|----------|
| <b>FEMA Flood Map Store .....</b>             | <b>3</b> |
| <b>New Faces .....</b>                        | <b>3</b> |
| <b>Conference Corner .....</b>                | <b>4</b> |
| <b>Indiana Conservancy District Act .....</b> | <b>4</b> |
| <b>Proposed Floodplain Rule Changes .....</b> | <b>6</b> |
| <b>Precipitation .....</b>                    | <b>7</b> |

approval by the Natural Resources Commission, through the Department of Natural Resources, Division of Water, and the State Board of Finance. The program must be needed for the purpose of protecting public health, safety, and general welfare.

A Flood Control Revolving Fund Loan to any local unit of government cannot exceed \$300,000. A Flood Control Revolving Fund Loan may be made for a period not to exceed ten years and currently bears a 3% interest rate.

Two recently approved applications include \$150,000 for the Town of Cannelton in Perry County for repairs to its flood control levee and \$100,000 for the Breevort Levee Conservancy District in Knox County for modifications to a pumping station. Both projects were cost shared with the U.S. Army Corps of Engineers.

**The Rural Water Supply Revolving Fund** is available to a municipality, city, town, county, or special taxing/assessment district for the purpose of establishing and modernizing rural water supply systems.

The Rural Water Supply Revolving Fund is only available to entities with a total population not exceeding 1,250 persons. The eligible entity must also have the authority to own, construct, enlarge, maintain, and operate a water system. The eligible entity must prove that they are unable to borrow the necessary funds from the commercial money market.

The proposed rural water supply project is subject to approval by the Natural Resources Commission, through the Department of Natural Resources, Division of Water; the Indiana Utility Regulatory Commission; and the State Board of Finance. The proposed project must be needed for the purpose of protecting public health, safety, and general welfare.

A Rural Water Supply Revolving Fund Loan to any local unit of government cannot exceed \$150,000. A Rural Water Supply Revolving Fund

Loan may be made for a period not to exceed twenty years and currently bears a 1.5% interest rate for the first eight (8) years and 5% thereafter.

Two recently approved applications include \$150,000 to the Waldron Conservancy District in Shelby County to make improvements to its water treatment facility, and \$150,000 to the Town of Dune Acres in Porter County for emergency work associated with its water collection system.

How do we get more information about the Flood Control Revolving Fund or the Rural Water Supply Revolving Fund?

Application information can be found on the Department of Natural Resources, Division of Water website at [www.IN.gov/dnr/water](http://www.IN.gov/dnr/water), or you can call, fax, or write your request to the Division of Water at:

Indiana Department of Natural Resources  
Division of Water  
ATTN: Project Development Section  
402 W. Washington Street, Room W264  
Indianapolis, IN 46204-2641

Phone: 317-232-4160  
Toll Free: 1-877-WATER55 (1-877-928-3755)  
Fax: 317-233-4579

### **CERTIFIED FLOODPLAIN MANAGER EXAM**



The ASFPM Certified Floodplain Manager Exam will be offered at the Fifth Annual INAFSM Conference on Friday, September 14, 2001.

Additional exam information is available at <http://www.floods.org>

## THE FEMA FLOOD MAP STORE



[www.msc.fema.gov](http://www.msc.fema.gov)

Now you can order all of your mapping products online at the FEMA Flood Map Store.

- FEMA Issued Flood Maps
- Flood Insurance Studies
- Letters of Map Change (LOMCs)
- Flood Map Status Information System (FMSIS)
- Q3 Digital Flood Data
- Q3 Coastal Barrier Resource Data
- Community Status Books
- National Flood Insurance Programs Manuals

The FEMA Flood Map Store is now open for business customers and those customers that are exempt from fees (FEMA, federal, state, and local agencies). Customers will need to go to the MSC web site and set up an account prior to ordering. For individuals wishing to purchase products for personal use, please call the MSC Customer Service at 1-800-358-9616.

There are three ways to order products through the store.



The Catalog allows you to find products by their type and the state, county, or community of interest. This search is designed for the customer who desires all the products of a certain type for a specific jurisdiction

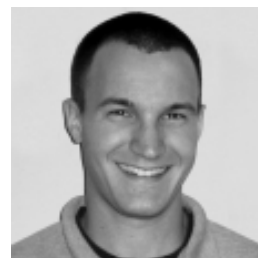


Map Search allows you to find products by a street address or a specified area of interest on the map.



Quick Order allows you to enter in a known map panel number or community

number directly. This search is geared toward the customer who is knowledgeable about FEMA products.≈



### NEW FACES

The Floodplain Management Section at the Division of Water has some new faces. Earlier this year, both Beth Tallon and Sean Gorman moved on to other positions within the Division of Water. We wish them the best! In April, Darren Pearson (*left*) and Matthew Baller (*right*) joined the Floodplain Management Section to fill those voids.

Darren has been assigned responsibility for the National Flood Insurance Program (NFIP) communities in the southern region of the State. He is a recent graduate of Ball State University with a Bachelors Degree in Natural Resources and Environmental Management. Darren is an avid outdoorsman with hobbies that include camping, backpacking, horseback riding, and archery.

Matthew has joined our staff as the North Region Water Planner. His responsibilities include assisting communities involved in the National Flood Insurance Program. Matthew received his Bachelors of Science degree in Natural Resources and Environmental Sciences from Purdue University in December 1999, and was previously employed by a private environmental consulting firm before coming to the DNR.

Welcome Darren and Matt! ≈

*“Life is not waterproof –  
Be flood alert.”*



# CONFERENCE CORNER

## INAFSM Conference

The Indiana Association for Floodplain and Stormwater Management (INAFSM) will hold its 5th Annual Meeting and Conference September 12-14. The Holiday Inn City Center at South Bend will be the site for the annual event.

This 3-day conference provides training opportunities in the field of floodplain and stormwater management.



Each year, experts in the field are invited to speak on a variety of issues

including floodplain management, flood hazard mitigation, hydrologic and hydraulic studies, map revisions, map amendment, state permits, stream preservation, stormwater detention and retention, wetlands, and erosion control. The Certified Floodplain Managers Exam will again be offered at the conference (advance registration required).

For more information regarding INAFSM or the 2001 Annual Meeting and Conference, visit [www.inafsm.org](http://www.inafsm.org). INAFSM can also be contacted by telephone, fax, or by e-mail:

Telephone: (317) 796-2359

FAX: (317) 632-3306

e-mail: [inafsm@yahoo.com](mailto:inafsm@yahoo.com) ☺

## INDIANA CONSERVANCY DISTRICT ACT: SOLVING WATER RESOURCE PROBLEMS AT A LOCAL LEVEL

The Indiana Conservancy District Act, IC 14-33, was created by the Indiana General Assembly in

the 1950's. A conservancy district is established as a special taxing district to provide a mechanism to solve an identified local water resource problem.

The establishment of a conservancy district is initiated at the local level in the form of a petition to the local County Circuit Court. A conservancy district's boundary is set based upon benefits received and must be contiguous. The boundary can be set regardless of political boundaries, county or township lines, and can include a municipality, in whole or in part.

A conservancy district can be established for any combination of the following purposes:

1. Flood prevention and control.
2. Improving drainage.
3. Providing for irrigation.
4. Providing water supply.
5. Providing for the collection, treatment, and disposal of sewage and other liquid wastes.
6. Developing forests, wildlife areas, parks, and recreational facilities, in connection with beneficial water management.
7. Preventing the loss of topsoil from water erosion.
8. Storage of water for augmentation of stream flow.
9. Operation, maintenance, and improvement of:
  - a) a work of improvement for water based recreational purposes; or
  - b) other work of improvement that could have been built for any other authorized purpose.

A conservancy district is established by, and falls under the sole jurisdiction of, the local County Circuit Court. The Natural Resource Commission and the Department of Natural Resources provide technical reviews and recommendations to the Court on specific conservancy district activities including: Establishment of a new Conservancy District, Approval of the District Plan, Implementation of the District Plan, Addition of Area or a Purpose to an existing Conservancy District, and Dissolution of a Conservancy District.

When a conservancy district is established, the County Circuit Court divides the district into an odd number of sub-areas. An elected freeholder from each sub-area makes up the board of directors for the conservancy district. The district's board of directors handles the day-to-day activities of a conservancy district. The initial board of directors of a conservancy district is appointed by the County Commissioners.

A conservancy district must prepare and submit a district plan to the DNR, Division of Water, for technical review within 120 days after the initial board of directors is appointed, prior to formal submittal to the County Circuit Court. The district plan consists of an engineering report that sets forth the comprehensive plan for the accomplishment of each purpose for which the district was established. Once approved by the County Circuit Court, the district's board of directors must commit to placing the district plan in operation by constructing and maintaining all works of improvement in accordance with the district plan.

Some advantages of establishing a conservancy district include: the ability to tax to raise revenue, the ability to participate in certain state and federal grant and loan programs, the ability to solve multiple water resource issues, and a board of directors that are elected by the freeholders of the district.

Establishing a conservancy district can present some challenges also. Candidates must be found to serve on the conservancy district's board of directors. In addition, it is important to maintain an accurate public perception of the possible tax implications as well as any added purposes to the district after it is established.

Since 1957, over 100 Indiana Conservancy Districts have been established and over 75 of those remain active districts today.

For more information:

Visit the Department of Natural Resources,

Division of Water website at [www.IN.gov/dnr/water](http://www.IN.gov/dnr/water).

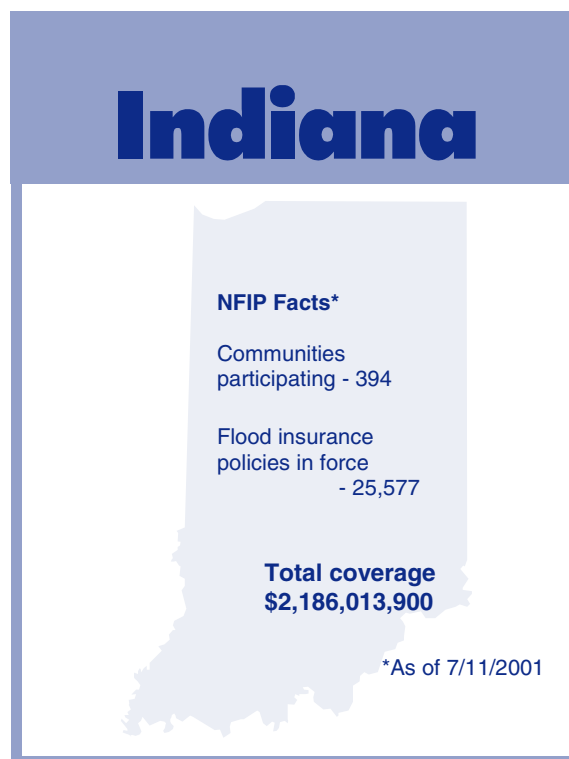
Or call, fax, or write your request to the Division of Water at:

Indiana Department of Natural Resources  
Division of Water  
ATTN: Project Development Section  
402 W. Washington Street, Room W264  
Indianapolis, IN 46204-2641

Phone: 317-232-4160  
Toll Free: 1-877-WATER55 (1-877-928-3755)  
Fax: 317-233-4579

Related publications available through the DNR, Division of Water:

2001 Indiana Conservancy District Directory  
(available on-line)  
Indiana Conservancy District Act, IC 14-33  
(available on-line)  
Guide to the Preparation of the District Plan  
Brief Explanation of the Indiana Conservancy District Act (brochure)  
Association of Indiana Conservancy Districts  
(brochure) ≈





## PROPOSED CHANGES TO STATE FLOODPLAIN RULES

In accordance with the current floodplain rules found in 310 IAC 6, Indiana communities that participate in the National Flood Insurance Program (NFIP) have adopted building protection standards in their local floodplain ordinances that are more restrictive than the minimum NFIP requirements. The purpose of these standards is to protect new and substantially improved buildings from damage from floodwaters.

One of these standards is that the lowest floor of a new or substantially improved building in the floodplain be two (2) feet above the base flood elevation at the site. Obviously, elevation of a building provides a large degree of protection from this hazard.

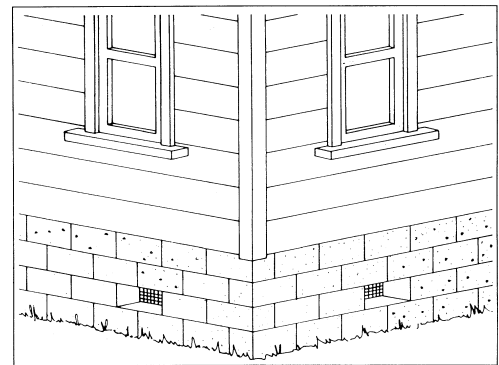
Another standard pertains to opening requirements for enclosed areas below an elevated building in a floodplain. This requires that walls of the enclosed areas have to provide a total of at least two permanent openings having a total of one (1) square foot for every two (2) square feet of enclosed floor area subject to flooding. While the main portion of an elevated building is protected from the 100-year flood (also known as the 1% flood or regulatory flood) and lesser-magnitude floods, the foundation and any enclosures below will be exposed to flood forces. These flood forces include the hydrostatic pressure of floodwaters against the foundation or enclosure walls. If the walls are not designed to withstand hydrostatic pressure, they can be weakened or can fail and the building damaged. This is the reason that properly placed openings are so important.

Earlier this year, the Natural Resources Commission approved proposed rule changes (312 IAC 10) that will govern construction activities in floodplains (flood hazard areas) and provides coordination with standards applicable to navigable waterways. These changes were prepared in response to the authorities and directives in IC 14-28-1, P.L. 35-1993 (portions

of which were subsequently codified at IC 14-28-2), and IC 14-28-3. 312 IAC 10, which repeals 310 IAC 6-1, will become effective January 1, 2002.

Communities participating in the National Flood Insurance Program should take note. Although most of the proposed changes are for clarification, one significant change was made regarding opening requirements.

Upon final approval of the proposed changes, 312 IAC 10 will require that enclosed areas below an elevated building, where the walls of the enclosure provide some resistance to the flow of flood water, have the walls designed to automatically equalize hydrostatic flood forces by allowing for the entry and exit of flood water. There must be at least two (2) permanent openings that are designed and maintained for the entry and exit of floodwater. The openings must provide a total of at least one (1) square inch for every square foot of enclosed



floor area subject to flooding. The bottom of an opening can be no more than one (1) foot above grade. Doorways and windows do not qualify as openings. The new opening requirement is less restrictive than the previous requirements and is now equivalent to the federal requirements found in 44 CFR 60.

Once 312 IAC 10 becomes effective, NFIP communities will have the option of relaxing their floodplain regulations in this regard. Should NFIP community officials elect to amend their floodplain regulations, they should contact the Floodplain Management Section at 317-232-4160 or toll free at 1-877-928-3755. ≈

## PRECIPITATION REPORT FOR JANUARY THROUGH JUNE 2001

After one of the coldest and snowiest Decembers and months of record, Indiana started the year on a warmer note. January was much warmer and one of the driest and less snowy of record. Little precipitation fell during the first 25 days of January. At Indianapolis, January was the 8<sup>th</sup> driest January of record and the driest January since 1986.

February was warmer and wetter than normal across Northern Indiana. Two precipitation events in northern Indiana caused flooding on area rivers and streams. Flooding was continuing along the Yellow, Kankakee, and Tippecanoe Rivers as February closed. All of the flooding was minor in nature. Monthly precipitation was generally near normal during February for the rest of the state. Monthly snowfall was well below normal statewide.

The precipitation shortage that began in the beginning of 2001 continued. March was one of the driest of record for most of Indiana. At Fort Wayne, it was the driest March on record and the 4<sup>th</sup> driest March on record at South Bend. Monthly snowfall was again well below normal except at South Bend where 10.6 inches of snow fell.

April followed suite being among the driest Aprils of record. For most of Indiana, this was the sixth consecutive month with below normal melted precipitation. By the end of the month, the seasonal flow of the White and Wabash Rivers in southwest Indiana was the lowest in 25 or 30 years. At Indianapolis, the January through April period was the driest of record. However, some areas in the central and east central regions received heavy rain, hail, and strong winds early in the month.

Conditions were very dry at the beginning of May; however, monthly precipitation was above normal for much of Indiana. After seeing little precipitation for much of the year, rain occurred nearly every day somewhere in the State from the 14<sup>th</sup> through the end of May.

The above normal rainfall pattern that began during May, continued in many areas of Indiana at the beginning of June. During the first week, rain fell daily in much of the State with isolated heavy rain of 2 to nearly 6 inches. Heavy rain during early June caused lowland flooding along portions of the Wabash River and high flow in the White and East Fork White Rivers. After the 21<sup>st</sup>, dry weather prevailed over most areas. River levels returned to normal levels at the end of June. ☼



KEY:

ACTUAL (INCHES)  
NORMAL (INCHES)



| Airport<br>Locations | January<br>2001 | February<br>2001 | March<br>2001 | April<br>2001 | May<br>2001 | June<br>2001 | Totals<br>2001 |
|----------------------|-----------------|------------------|---------------|---------------|-------------|--------------|----------------|
| CHICAGO              | 1.12            | 2.57             | 1.30          | 2.82          | 3.34        | 2.61         | 13.76          |
| IL                   | 1.53            | 1.38             | 2.69          | 3.64          | 3.32        | 3.78         | 16.34          |
| SOUTH BEND           | 0.83            | 3.44             | 1.11          | 3.65          | 4.31        | 4.25         | 17.59          |
| IN                   | 2.23            | 1.90             | 3.10          | 3.82          | 3.22        | 4.11         | 18.38          |
| FORT WAYNE           | 0.74            | 2.73             | 0.48          | 3.59          | 2.56        | 4.26         | 14.36          |
| IN                   | 1.87            | 1.91             | 2.90          | 3.38          | 3.44        | 3.59         | 17.09          |
| INDIANAPOLIS         | 0.74            | 1.96             | 0.64          | 1.83          | 4.10        | 4.46         | 13.73          |
| IN                   | 2.32            | 2.57             | 3.79          | 3.70          | 4.00        | 3.49         | 19.87          |
| EVANSVILLE           | 1.29            | 3.26             | 2.23          | 1.60          | 3.82        | 3.82         | 16.02          |
| IN                   | 2.66            | 3.12             | 4.71          | 4.02          | 4.75        | 3.49         | 22.75          |
| LOUISVILLE           | 1.46            | 3.42             | 2.27          | 1.04          | 5.19        | 2.56         | 15.94          |
| KY                   | 2.86            | 3.30             | 4.66          | 4.23          | 4.62        | 3.46         | 23.13          |
| CINCINNATI           | 1.33            | 1.81             | 1.42          | 1.46          | 5.16        | 4.45         | 15.63          |
| OH                   | 2.59            | 2.69             | 4.24          | 3.75          | 4.28        | 3.84         | 21.39          |

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## **THANK YOU**

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Editor - Anita Nance

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*Waterlines* is available free of charge to interested parties upon request. Call or write:

Division of Water  
Indiana Department of Natural Resources  
402 West Washington Street, Room W264  
Indianapolis, Indiana 46204-2641  
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***Waterlines* is also available on the web at [www.IN.gov/dnr/water/waterlin.htm](http://www.IN.gov/dnr/water/waterlin.htm)**